INTERCITY PASSENGER TRANSPORTATION DURING THE PERIOD 2000-2025

A Submission
by
The Government of Alberta
to the
Royal Commission
on National Passenger Transportation

Alberta Department of Transportation and Utilities

October, 1990

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FOREWORD

This document constitutes the Government of Alberta's formal submission to the Royal Commission on National Passenger Transportation.

The submission attempts to look squarely at the future from a Canadian perspective, not from a narrow western Canada or Alberta point of view. It contains no magical solutions, but is rather a framework of guiding principles the Royal Commission might wish to consider. While the focus is on the period 2000-2025, issues of more immediate concern to Alberta will continue to be raised in other forums.

For the convenience of the reader, the submission includes a one-page abstract and a comprehensive executive summary.

The Government of Alberta hopes that the Commission will find this submission useful. Alberta will be most interested in reviewing the Commision's Interim Report when it becomes available.

Alberta Department of Transportation & Utilities
Policy Development Branch

October, 1990

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ABSTRACT

The overall theme of this submission is that changing global circumstances require governments to start now to facilitate development of a passenger transport system capable of serving Canada well during the first 25 years of the next century.

Canada has outgrown its current vision of transportation, which was successfully implemented over the past century by means of large, nation-building projects, regulation and publicly owned national carriers. The world of 2000-2025 will require this country to use all transportation facilities and services - from rural road through to international air link - as a prime means of gaining a competitive edge on other countries.

Rather than propose some detailed master plan, a national intercity passenger transport policy needs to set an overall framework within which our communities and regions can flourish. As a rule, the higher the level of government, the more general such a framework should be.

Although most basic facilities are already in place, there will always be a need for governments to facilitate the provision of some transport infrastructure in a country having our geography, climate and population. One option would be to set up federal regional transport investment pools allocating a portion of federal transport funding to proponents of facilities having regional or national significance. In effect, government would "top up" where necessary.

Where major transportation projects are concerned, public consultation early in the planning process will encourage informed discussion of benefits as well as costs, and thus ensure decision-making in the best public interest. In many cases, the remedies to deal with environmental problems have the potential to help resolve transport problems as well.

In a diverse and far-flung country like Canada - with its mix of private and public, national and regional carriers - one of the most important requirements for the future will be coordination of the various passenger transport modes. Such coordination is unlikely to occur through centralized planning and direction; instead, it will only happen if carriers of all modes perceive it to be to their advantage as a source of new traffic, or for the preservation of existing traffic where real competition exists. We also will need to ensure that monopolistic or oligopolistic situations are remedied where possible.

While the evidence all suggests that a trading nation like Canada will have to look more outward in future - both south to the US and in most directions to other continents - this change in direction will not necessarily result in a diminution of cross-Canada business or pleasure travel.

Canadian efforts should be directed to ways to enhance research and development efficiencies and performance. Mechanisms which encourage and foster cooperative efforts warrant further exploration.

EXECUTIVE SUMMARY

Introduction

The Government of Alberta welcomes the opportunity to make a submission to the Royal Commission on National Passenger Transportation.

The Department of Transportation and Utilities has conducted a four-part work program: preparation of a preliminary issues document and inventory; staging of a one-day Alberta Symposium on Future Intercity Passenger Transportation (in cooperation with the University of Calgary's Institute for Transportation Studies); sponsorship of a consultant study of future intercity business, tourism and special travel sectors; and sponsorship of a consultant assessment of environmental issues related to intercity passenger transportation (with the assistance of the Saskatchewan Department of Highways and Transportation).

The submission attempts to look squarely at the future from a Canadian perspective, not from a narrow western Canada or Alberta point of view. The overall theme is that changing global circumstances require governments to start now to facilitate development of a passenger transport system capable of giving Canada a competitive edge during the first 25 years of the next century.

The document contains no magical solutions, but is rather a framework of guiding principles the Royal Commission might wish to consider. While the focus is on the period 2000-2025, issues of more immediate concern to Alberta will continue to be raised in other forums.

Gaining a Competitive Edge

Canada has outgrown its current vision of transportation, which was successfully implemented since Confederation by means of large, nation-building projects, regulation and publicly owned national carriers. The world of 2000-2025 will require this country to use all transportation facilities and services - from rural road through to international air link - as a prime means of gaining a competitive edge on other countries.

In the past, Canada has had two underlying philosophical approaches to transportation: regulation until the mid-1960s; and deregulation - culminating in the "Freedom to Move" initiative - since. Now we need a new option, which will enhance intercity passenger transport innovation well into the 21st Century.

To capitalize on new ideas and innovation, we must once again treat transportation as more than just another factor of production in society, like energy or raw materials. Transport is the collector of economic inputs and the distributor of products, services and people - a required element if opportunity is to exist, not merely a derived demand. Furthermore, international borders have become blurred, meaning that domestic factors no longer dominate the setting of social, economic, financial, technological, cultural and political trends.

It can be strongly argued that we will not have the luxury of deciding whether we want to improve our transport system. Rather, it will be a matter of basic survival. History tells us what happens when communities, regions or countries fail to keep pace with transport developments: they are by-passed and stagnate; some even die. Canada faces such a choice at this time: we either establish a transport system which is innovative and responsive, or our economy will not be competitive.

While moving goods around the country and beyond to export markets will be of critical importance, so will intercity passenger transportation - both international and domestic. High-quality passenger links encourage business to be done here in Canada rather than in other countries, and are crucial to attracting tourists in a world featuring many prime, readily accessible tourist attractions.

Facing the World of 2000-2025

While national policies featuring roles assigned according to some master plan may have worked in the past, they have tended not to be successful in recent years, and are even less likely to be in tomorrow's world. It follows that the individual must be given the widest possible freedom to innovate.

Due to advances in electronic technology, evolving global socio-economic changes and the "empowerment" of the individual, the worldwide trend has been towards decentralization of power within countries.

Governments everywhere appear leary of attempting to implement overall master plans developed according to centrally developed concepts. They seem to acknowledge that the primary driving force of an economy is the highly trained individual citizen armed with the latest technology and motivated to achieve a high standard of living. Aspirations usually include considerable leisure travel, and, for many people, work requires a lot of business travel as well.

There is also recognition that national economies are the sum of many sub-economies, and that these typically function as part of a region, then progressively of a country and finally of the world beyond. In the future inter-related world, a regional economy may have closer economic ties with foreign countries than with some parts of the nation itself.

Consistent with the empowerment of the individual will be an increasing demand for mobility (i.e., convenience and choice). Transport planners will have to design systems and individual services to serve the widest population possible - not just the able-bodied.

Decentralizing the Delivery of Services and Facilities

Rather than propose some detailed master plan, a national intercity passenger transport policy needs to set an overall framework within which our communities and regions can flourish. As a rule, the higher the level of government, the more general such a framework should be.

One key advantage of this approach is that government remains close to the individual, and as a rule, the closer the government is to the individual, the better the likelihood it can be held accountable for its actions. Where transport is concerned, another advantage is that the user's interests are more likely to be paramount, rather than those of government bureaucracies, carriers or facility operators.

There will still be a legitimate role for the central government in such matters as responding to a need for national standards (e.g., highway design), developing a code for handling hazardous goods, ensuring a high level of safety, or providing certain transport facilities of regional or national significance. It can also act as an invited mediator when disputes cannot be resolved among carriers, users and communities. Where market forces can meet needs, regulation should focus on safety, consumer and environmental protection rather than service levels, awarding of routes, or other forms of economic regulation.

To reduce the necessity of provinces opting out of national frameworks, it will always be important that decisions are reached through consensus rather than through a centrally imposed master plan, and that the framework build in flexibility. The option should always be there for a province - or perhaps a region - to implement its own rules if a framework fails to deal adequately with local conditions. An example would be if nationally designed highway standards failed to address conditions facing truckers of a particular region.

It is useful at this point to divide the delivery of intercity passenger transportation into two segments: operating services and facilities; and facilitating the provision of infrastructure. As a general rule, the private sector or regional authorities should take care of the former. Where transport services are concerned (i.e., running the airplanes, buses and trains), private carriers can best do the job. The need for government-owned carriers for the most part will vanish during the period under consideration (the privatization of Air Canada already having set the tone.)

Then there is the operation of transport facilities. In the next century, our communities will need to have every advantage as they compete, not just with other regional and national centres, but with cities all over the world. The old approach of having a central government own, market and operate such a key economic development tool as a community's airport - in accordance with one overall plan - has little support today.

It is important to acknowledge at this point that, in a country like Canada, there will always be a need for government to subsidize the operation of some transport services and facilities for social and economic development reasons - particularly those in remote and northern areas. Such services and facilities should be reviewed on an on-going basis so as to ensure that they are being provided in the most efficient manner possible.

Service to rural areas will become more and more of a problem as people continue to consolidate in larger rural towns and villages. If an effective public transport alternative is to be maintained, it will be necessary to encourage the use of vehicles, operating procedures, and manning arrangements tailored to the demand, not copied from high-volume operations. Franchising such routes to smaller operators may be one method by which rural communities can continue to receive service to regional centres. The role of higher levels of government should be to ensure that there are no regulatory or other impediments to such innovation, while at the same time continuing to monitor safety and consumer issues.

Finally, the collective effect of all taxation policies should not impede the efficiency of our transport system. If the various taxes and charges are collected without regard to their cumulative effect on our transport carriers and facility operators, we may not be able to achieve the degree of efficiency necessary to ensure our future competitiveness - especially with the US right next door and myriad other nations not far beyond. This danger will be only exacerbated should the proposed federal Goods and Services Tax be passed into law.

Facilitating the Provision of Infrastructure in a Changing World

Although most basic facilities are already in place, there will always be a need for governments to facilitate the provision of some transport infrastructure in a country having our geography, climate and population. The basic split within most modes is likely to remain (i.e., whereby government is responsible for the infrastructure and private carriers the services), but there may be expanded opportunity for private involvement. One option would be to set up federal regional transport investment pools allocating a portion of federal transport funding to proponents of facilities having regional or national significance - according to regional and local priorities.

In Alberta's view, governments will continue to have a major role in facilitating the provision of transport infrastructure. At present, public facilities are generally paid for out of general revenue, which is collected by the federal and provincial governments through several means, including income taxes, excise taxes, sales taxes, fuel taxes, royalties and user charges.

Alberta suggests that another approach will be needed to fit the circumstances of the of the 21st Century. Planning will more and more have to follow the priorities of those regional and community interests which depend upon these facilities for their future economic and social development, and the conditions will have to be such that there is an incentive for modal coordination. There will be little scope for unilateral federal action in this or most other transport matters.

One approach would be to establish regional pools of federal transport infrastructure investment money to handle those projects which serve regional or national goals and which fit either of two circumstances: one, they form the basic infrastructure needed to support economic activity, but due to certain basic realities can never be financially self-sufficient; or two, they need help in the early years to achieve long-term viability.

The basic philosophy would follow Alberta's Transportation Partnership capital grants for cities and Public Transportation Operating Assistance grants for smaller communities. Subject to certain minimal conditions, money is provided for use according to the community's priorities, on the principle that they know what is best for them.

When designing the structure of these regional pools, other models could be looked at: federal "block" grants for education or health care; the federal Western Economic Diversification Fund; the Canada - Alberta Northern Development Agreement; and the various federal - provincial Memoranda of Understanding which provide for joint planning and complementary programming. While none of these models by any means would fit all of the requirements for such pools, each has attributes which might be useful to consider.

A regional pool concept for transport would enable proponents to apply for funding support of key transport infrastructure where insufficient private capital was available. In the case of projects initiated by the private sector or a regional authority, provincial and municipal governments could decide to join in with financial support. Successful proponents would be expected to pay back a good share of the funding made available. In effect, government would be "topping up" where necessary.

Bringing Transportation and the Environment Together

Where major transportation projects are concerned, public consultation early in the planning process will encourage informed discussion of benefits as well as costs, and thus ensure decision-making in the best public interest. In many cases, the remedies to deal with environmental problems have the potential to help resolve transport problems as well - a fact which provides a clear opportunity for governments, environmental groups and the private sector alike.

Environmental matters will remain high on the public agenda, and with the active role of individuals and interest groups, it is unlikely that major transport projects will be built until they have undergone intense public scrutiny.

Only through early public consultation can there be informed debate on the benefits and costs of a project (including regional social and economic, as well as environmental, factors), consideration of alternatives before positions become entrenched, and the incorporation of mitigative measures in design.

Many of the remedies being proposed to deal with environmental problems have the potential to help resolve transport problems as well. For example, moving to smaller, more efficient vehicles and encouraging car pooling or the use of public transit would go some way to reducing emissions and the environmental issues associated with road expansions in built-up areas. Such changes would also reduce the need for costly new road infrastructure. In tandem with land-use planning, transport planning can become an integral part of the environmental effort.

Support of research and development - together with sound decision-making by individuals, policy makers and planners - will be required. At the same time, we must ensure that the costs (direct and indirect), taxes and fees incurred in addressing environmental issues are kept at a level which maintains the cost competitiveness of the Canadian transportation system into the next century.

Combining Land Use and Transportation Planning

In future, there will be an even greater need to coordinate land-use planning and regulation with transportation requirements. The city must be looked at as the origin or destination of most intercity trips. The structure of our cities, existence of downtown access corridors, and availability of intermodal terminals will all have an important effect on the future competitiveness of our communities.

Land use has several implications for intercity passenger transportation, beginning with the effect of urban development on local transit. Most intercity trips begin in cities. Because the typical development pattern of our cities is not conducive to transit, most people do not have a convenient alternative to the automobile. Furthermore, these urban development patterns can make access between home or office and intercity terminals difficult, thereby affecting the competitiveness of a city in a world in which every advantage is important.

Ensuring Future Competition and Coordination of Services

In a diverse and far-flung country like Canada - with its mix of private and public, national and regional carriers - one of the most important requirements for the future will be coordination of the various passenger transport modes. Such coordination is unlikely to occur through centralized planning and direction; instead, it will only happen if carriers of all modes perceive it to be to their advantage as a source of new traffic, or for the preservation of existing traffic where real competition exists. We also will need to ensure that monopolistic or oligopolistic situations are remedied where possible.

Every effort will have to be made to ensure that future intercity passenger transportation is provided under competitive conditions wherever possible, so as to encourage innovation and efficiency. This means intra-modal competition in major intercity bus and air corridors. (In theory, the same should apply to the rail mode, but this will likely remain impractical due to the economic and ownership structure typical of large railways.)

The issue of corporate concentration will also be important. Canada cannot afford to ignore what has been going on internationally in the airline industry. Our airlines may well have to enter strategic alliances with their US and other counterparts, so as to survive as viable forces on the world stage and competitors on the domestic scene.

Coordination of schedules, terminals, fares and marketing is equally important if public transportation is to become an effective alternative to the automobile. One of the keys here will the existence of multiple carriers within each mode on major intercity routes. Competition is the best way to ensure carriers have little choice but to innovate and tap every source of revenue.

Another requirement is the further development of Computerized Reservation Systems (CRS), which will facilitate the selling of complete packages featuring public transportation, rental cars, accommodation and attractions aimed at both tourists and business travellers. One reason such coordination has not happened on a wide scale in the past has been the absence of access to these systems at a reasonable charge. This will likely change as substantial advancements are made into the 21st Century.

The role of government should be to act as a catalyst in ensuring that these coordinating efforts succeed. Examples are: the federal regional transport investment pools mentioned above could be tapped to help develop CRS; governments could ensure that regulations and land-use policies did not hinder development of coordinated services and multimodal terminals; and governments could encourage the carriers to work together (including staff training) towards the new era of coordination.

Spanning the Globe While Preserving Domestic Links

While the evidence all suggests that a trading nation like Canada will have to look more outward in future - both south to the US and in most directions to other continents - this change in direction will not necessarily result in a diminution of cross-Canada business or pleasure travel.

It is true that, for Alberta, our outward-looking focus will be even more pronounced, with emphasis on the western US (given the Canada-US Free Trade Agreement) and Pacific Rim countries. But it could be argued that the trade agreement will improve the economic prospects of all regions of the country, and therefore the ability (and need) to utilize our cross-Canada passenger links. Accordingly, our identity as a country will also be strengthened, not weakened by the forces of globalization.

Towards Effective Research and Development

Canadian efforts should be directed to ways to enhance research and development efficiencies and performance. Mechanisms which encourage and foster cooperative efforts warrant further exploration.

It is well recognized that Canada's total commitment by industries, governments and universities to science and technology lags significantly behind our major international competition. Every effort should be made to maintain the current level of research investment, ensuring that it is not progressively eroded by inflation. As financial conditions permit, research and development should be high on the priority list for additional dollars.

If we cannot see a rapid increase in research and development funding, our attention has to turn to improving research efficiencies and performance in Canada. No one model can be suggested which would adequately serve the spectrum of activities undertaken by the various levels of government and private companies of all sizes that comprise the transportation sector. Nor would our needs be served by simply transplanting a successful foreign model into the Canadian economy and culture.

Mechanisms which foster co-operation - both in information sharing and joint research and demonstration projects - should be encouraged among Canadian jurisdictions, with foreign agencies, and between governments and the private sector.

As well as realizing leverage in our research and development investment and avoiding costly duplication, co-operative efforts facilitate the transfer and dissemination of new technologies. Effective technology transfer helps ensure that our transportation system benefits from new innovations and enhanced efficiencies.

Striking an Agenda for Action

To conclude: Before any of the above can happen, it will be necessary to develop a widespread understanding of just how much our global competitiveness will depend on good passenger transport links.

There is really no choice but to get the necessary institutional arrangements and facilities in place at the appropriate time, so as to give Canada the competitive edge it will require in the 21st Century.

Further Investigation

It is suggested that the Royal Commission might wish to conduct further investigations to determine how:

- other countries are planning to cope with the world of 2000-2025;
- a national transportation policy framework can be structured;
- government funding of transportation infrastructure can be concentrated on "leading edge" projects, to be implemented locally or regionally to the extent possible through the establishment of federal regional transport investment pools;
- the private sector can take on a bigger role in funding transport facilities;

- transportation and the environment can be mutually supportive in solving each other's problems;

- land use and regulation can be brought into the new framework;

- our transport carriers can be encouraged to move to a fully coordinated intercity passenger system, while effective competition exists and our system is fully tied into worldwide trends; and

- transport research and development can be facilitated through cooperation and technology transfer.

1.0 INTRODUCTION

The Government of Alberta welcomes the opportunity to make a submission to the Royal Commission on National Passenger Transportation.

The Department of Transportation and Utilities has conducted a four-part work program in support of the submission:

- preparation of a preliminary document entitled, Passenger Transport Issues From an Alberta Perspective: An Informal Submission to the Royal Commission on National Passenger Transportation, including an appendix, "Inventory of Alberta's Passenger Transport Network" (April, 1990; "Inventory" revised September, 1990);

- staging, in cooperation with the University of Calgary's Institute for Transportation Studies, a one-day Alberta Symposium on Future Intercity Passenger Transportation (June 28, 1990; Proceedings subsequently circulated to participants);

- sponsorship of a study of future intercity business, tourism and special travel sectors (Horizon Pacific Ventures Ltd.); and

- sponsorship of an assessment of environmental issues related to intercity passenger transportation, with the assistance of the Saskatchewan Department of Highways and Transportation (Scace & Associates Inc.).

The first two documents mentioned above are available in conjunction with this submission. The latter two constitute background material for use by the Government of Alberta and will be made available to the Commission at a later date.

The Department wishes to acknowledge the essential role of the consultants, Horizon Pacific Ventures and Scace & Associates, in developing much of the thinking behind this submission. Also contributing substantially to this process were the consulting firm, Facing the Future Inc., and the Futures Compendium of Alberta Economic Development and Trade. Finally, the submission benefitted substantially from the constructive comments provided by these Alberta departments: Environment; Federal and Intergovernmental Affairs; Municipal Affairs; Tourism; and Treasury.

The submission attempts to look squarely at the future from a Canadian perspective, not from a narrow western Canada or Alberta point of view. The overall theme is that changing global circumstances require governments to start now to facilitate development of a passenger transport system capable of giving Canada a competitive edge during the first 25 years of the next century. The key questions involve: the context within which intercity passenger transportation will function at that time; the role it will play; how it will be delivered to both citizens and visitors to our country; and how it can contribute to mitigating the environmental problems faced by our society.

While the focus of the submission is on the period 2000-2025, issues of more immediate concern to Alberta will continue to be raised in other forums.

The submission is organized as follows:

Chapter 1 is the present "Introduction".

Chapter 2 presents a number of background issues likely to affect future intercity passenger transportation: the need for a new approach capable of dealing with future global, national and regional settings; some of the social, economic and technological issues which will drive the need for this new approach; the dynamics between intercity passenger transportation and Canada's future development; and some ideas designed to ensure that a highly competitive, innovative passenger transport system is in place when required.

Chapter 3 describes the relationship between man and earth in a changing biosphere, and means by which future intercity passenger transportation can become a positive force in dealing with environmental problems - while at the same time proposed environmental solutions help solve transport problems.

Chapter 4 builds on the previous chapters by outlining several guiding principles the Government of Alberta believes can be used to help ensure Canada's future global competitiveness: gaining a global competitive edge; facing the future world of 2000-2025; decentralizing the delivery of passenger transport services and facilities; facilitating the provision of infrastructure in a changing world; bringing transportation and the environment together; combining land use and transportation planning; ensuring future competition and coordination of services; spanning the globe while preserving traditional east-west domestic links; encouraging effective research and development; and striking an agenda for action.

Chapter 5 provides a summary of the key points made throughout the submission and recommends several issues for further investigation.

The Government of Alberta hopes that the Commission will find this submission useful. Alberta will be most interested in reviewing the Commission's Interim Report when it becomes available.

2.0 FACILITATING A FUTURE INTERCITY PASSENGER TRANSPORT SYSTEM

2.1 Introduction

Canada has outgrown its current vision of transportation, which was successfully implemented since Confederation by means of large, nation-building projects, regulation and publicly owned national carriers.

To capitalize on new ideas and innovation, we must once again treat transportation as more than just another factor of production in society, like energy or raw materials. Transport is the collector of economic inputs and the distributor of products, services and people - a required element if opportunity is to exist, not merely a derived demand. **(Figure 1.)**

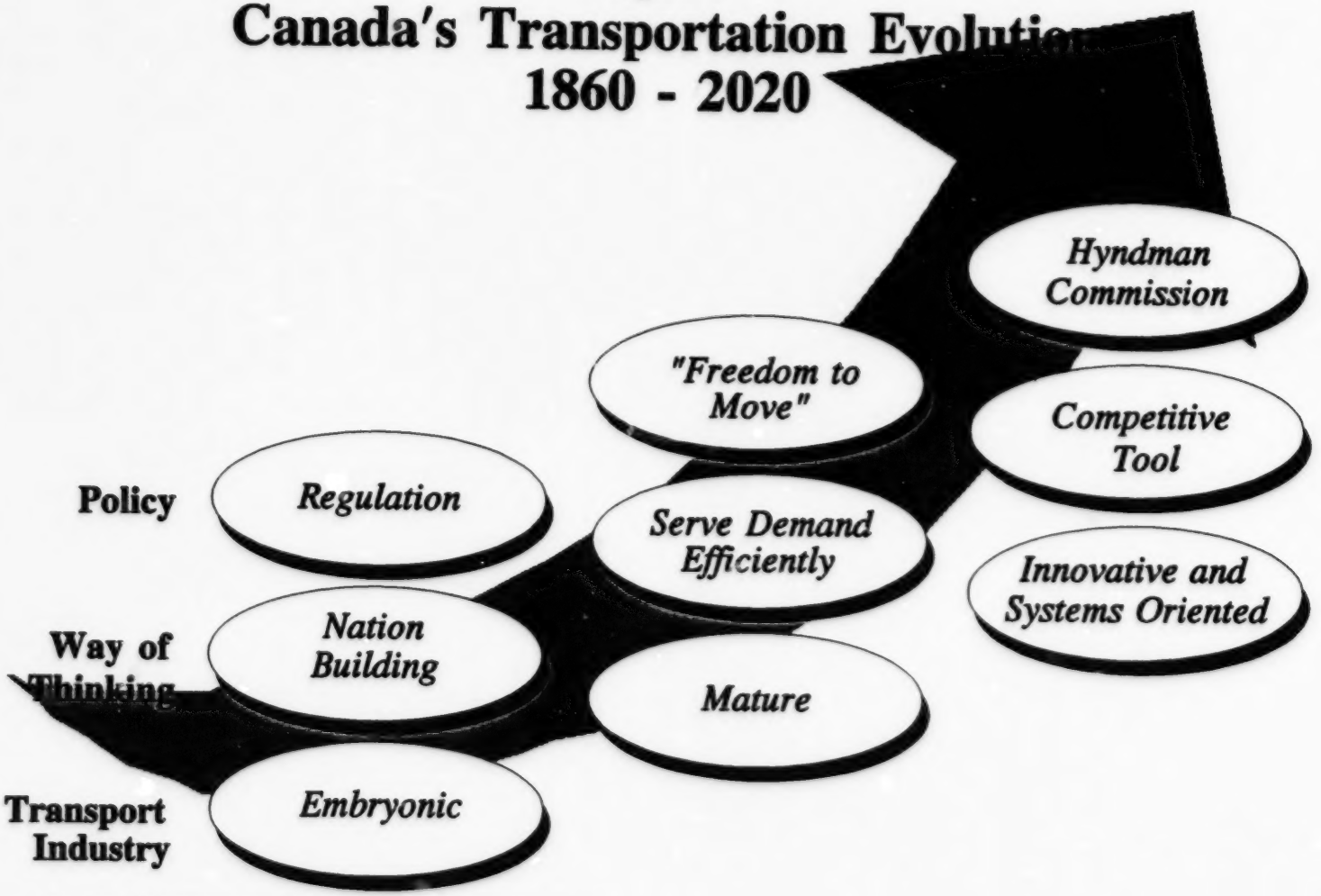
The efficiency of the transport sector will continue to be vital to our resource, secondary and service sectors, and to the ability of Canadians to forge business, social and other links across this spread-out country. Governments and the private sector must work together to provide an efficient, low-cost transport system capable of ensuring both our global competitiveness and our national well-being. In this regard, the future of each of our regions lies both within and beyond this country's borders.

Contrary to some opinion, transport has the potential to support the objectives of environmental protection. At the same time, environmental awareness may make it easier to implement many of the solutions required to solve capacity and other problems facing transport.

Another key factor is that international borders have become blurred, meaning that domestic factors no longer dominate the setting of social, economic, financial, technological, cultural and political trends.

Figure 1

Canada's Transportation Evolution 1860 - 2020



Source: Horizon Pacific Ventures Limited, September 1990.

Canada must begin now to adopt a new way of thinking which reflects the ever-accelerating forces affecting the country of today and - more importantly - of tomorrow. Canada must view the sum of its federal, provincial and municipal transport policies as a means of obtaining a competitive edge over other nations in the 21st Century, through building on the strengths of our various communities and regions.

2.2 Confronting the New Global Reality

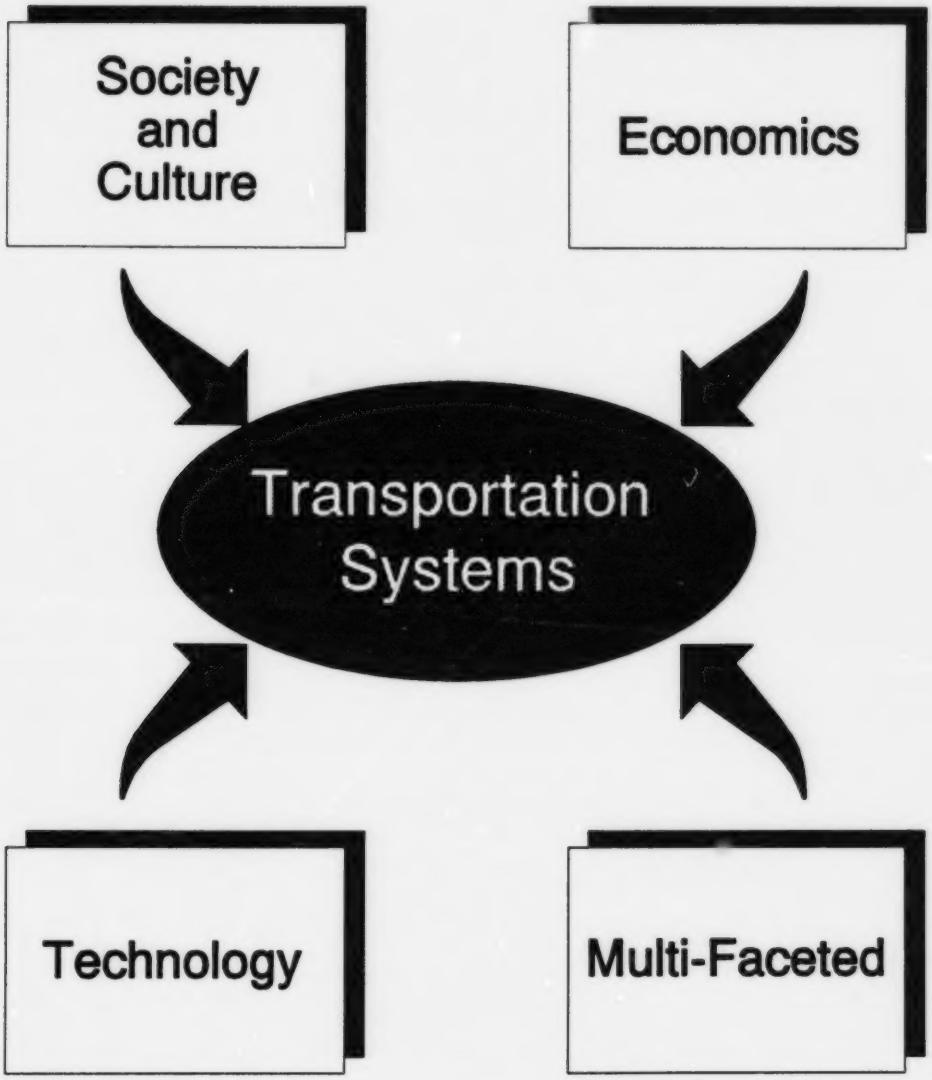
As illustrated in **Figure 2**, future intercity passenger transportation will be affected by four basic types of issues: society and culture; economics; technology; and "multi-faceted". (The last-mentioned category includes such matters as shifting trade patterns, political crises, wars and environmental issues.)

With advances in telecommunication and transportation technology, humanity is being brought much closer together. The Boeing 747-400, with its range of 13,400 kilometres, can fly from Seoul to New York non-stop, potentially cutting intermediate points out of the picture. The smaller cities of Canada, perhaps the country as a whole, could be more and more bypassed - forced to rely on connecting flights to major US points such as New York, Dallas-Fort Worth or Los Angeles for overseas flights.

Telecommunication and transportation linkages expand interaction between the economies of countries. Events happening in Moscow can now have a direct impact on a rural Saskatchewan community; a decline in the Tokyo Stock Exchange can influence resource projects in northern Alberta. This trend will accelerate in future, especially given that international trade now represents nearly one-fifth of the world's gross production, and Canada now is the seventh largest economic player. Trade represents 51 per cent of our Gross Domestic Product - fourth highest of any country.

Figure 2

Dissecting the Issues Shaping Transportation



Source: Horizon Pacific Ventures Limited and Facing the Future Inc., September 1990.

Global competition is also increasing, with the consolidation of the European Community and the opening up of eastern Europe and the Soviet Union. Exports by China, southeast Asia and Latin America in particular will continue to expand. But this rapid development represents an opportunity as well as a threat. With good transport links, Canada will be better able to boost exports to these countries, while at the same time attracting their investment dollars and tourists.

Within Canada, demographic changes will be of major importance. The aging population, the changing make-up of the family, and migration trends (domestic and international) will all have a significant impact upon Canada's intercity passenger system by the early 21st Century.

Canada's increasing life expectancy will produce a well-off, influential, leisure-seeking group which will place new demands on our passenger transport system. As for the structure of the family, several trends will have an impact: the increase in the number of single-parent families; the decrease in family size; and the increased role of women in professional and management jobs. Finally, increased worldwide migration will result more and more in physical separation, which in turn will create an increased demand for transportation to bring families and friends together for visits. It also will help define the origins and destinations of travel.

Then there is the recent "empowerment" of the individual, which has led to well-organized, single-issue interest groups influencing events. This, along with the "NIMBY" ("Not In My Back Yard") phenomenon, has made it more difficult to develop transport projects, has placed in question traditional cost-benefit approaches, and has increased the need for consultative, people-oriented approaches to planning and decision-making.

How far this shift to individual rights will go is a crucial unknown, but one result is certain: ideas for future development will have to be flexible and adaptive to local and regional situations if they are to have a chance of being accepted. Proponents will need to have a clear idea beforehand of the process and the conditions necessary to gain approval.

Consistent with the empowerment of the individual will be an increasing demand for mobility (i.e., convenience and choice). Transport planners will have to design systems and individual services to serve the widest population possible - not just the able-bodied. In this regard, mobility is more and more being recognized as a human right, and for the transport industry this means barriers faced by all people must be reduced such that both public and private transportation becomes as accessible as possible. This will require changes in industry attitudes, transport equipment and infrastructure.

Transport technology has always impressed people, from the mammoth ocean liners of yesteryear to the high-capacity jumbo-jets of this era. "Bigger, faster, farther" for all modes is often still accepted as the likely wave of the future. Will high-speed rail become a reality in North America? Will supersonic aircraft rule the skies? No one knows, but the lesson is that dramatic technological change must be allowed for in our planning, indeed must be part of the overall effort by governments to provide a setting which is receptive to innovative solutions.

Today's transportation services are complemented by various forms of telecommunication, and the standard telephone system is still the leading method of discovering new markets and establishing contacts. In future, video telephones and other advances will be standard. Overall, though, telecommunications are likely to create the need for personal contact rather than reduce passenger transportation, by identifying market opportunities that require follow-up travel.

Petroleum-based products are likely to remain the main source of energy for transportation in future, but there will also be alternative energy sources such as nuclear, electrical, solar, alcohols, synthetics, hydrogen, natural gas, propane, liquid fuel from coal, biomass and geothermal. Again, the message is clear: the ability to respond to change is key.

The historic role of government in the funding of services and infrastructure has been under review in recent years. The roots of this trend are several: growing deficits; federal policies of devolution; questions about distortions caused in the marketplace; and a growing public demand for more say in decision-making. In the United States, private financing for infrastructure has become a popular concept, though most of it remains public.

Both government and the private sector can make good investment decisions, and both can make bad ones, too. The important thing is that the growing demand of regions, communities and interest groups for a say will have to be taken into account even more than today, while means are found to ensure that the good of society as a whole is not ignored.

Although there are still many demands for new transport corridors and investment in infrastructure, Canada already has constructed a substantial transport network, which for the most part should be adaptable to the new world we face. The growing requirement of this network today is heavy maintenance and rehabilitation, which unfortunately rarely captures the imagination of the populace. The reality is that as transport facilities are expanded, the long-run maintenance and rehabilitation commitment grows and financial flexibility to invest in new infrastructure is constrained.

Without appropriate investment in infrastructure, there is a tendency for carriers to assume monopolistic or oligopolistic powers when the expansion of transport facilities is limited by funding constraints. Restricted capacity makes it difficult for other carriers to come into a market and provide competition, and thereby entrenches the position of incumbent carriers.

As Canada's transport system continues to grow, policies that expand the capacity of existing facilities will have to take precedence if the system is to keep moving. Air mode examples are state of the art traffic control, availability of landing slots and airport gates, and peak-load pricing. Improvements should be made wherever possible to existing facilities, rather than building new ones.

2.3 Dealing With an Inter-Related Transport System

The entire intercity passenger transport system is inter-related, from the time the traveller leaves the house until arrival at destination - whether it be Stettler, Red Deer, Calgary, Toronto or Hong Kong.

Within cities, the mobility provided by the automobile decreases as congestion increases. Road users in our larger cities may increasingly find themselves compelled to travel at non-preferred times so as to avoid delays, and in some cases may discover it is simply impractical to make trips by road. If this happens, intercity transportation will be affected, because access to intercity bus, rail and air terminals is important to a community's competitiveness.

Environmental awareness could also decrease use of the automobile in at least three ways. First, it could increase operating costs through the imposition of new fees or taxes. Second, it might become difficult to build new roads or expand existing ones, meaning that some areas could not be easily reached by the automobile. Third, the swing in consumer demand towards environmentally friendly products (including public transit) could decrease kilometres driven much more than any government regulation.

Due to the weight of forces which can be expected to put downward pressure on automobile use, demand may decrease over time relative to population growth. The private auto will likely still be by far the dominant mode, because of its convenience and flexibility. Congestion, and its impact on the environment, could be mitigated by technological advances such as the so-called "Smart" vehicle navigational system (i.e., electronic mapping devices installed in vehicles interact with highway sensors that monitor traffic flow and keep vehicles moving), and due to the widespread use of smaller, less-polluting vehicles.

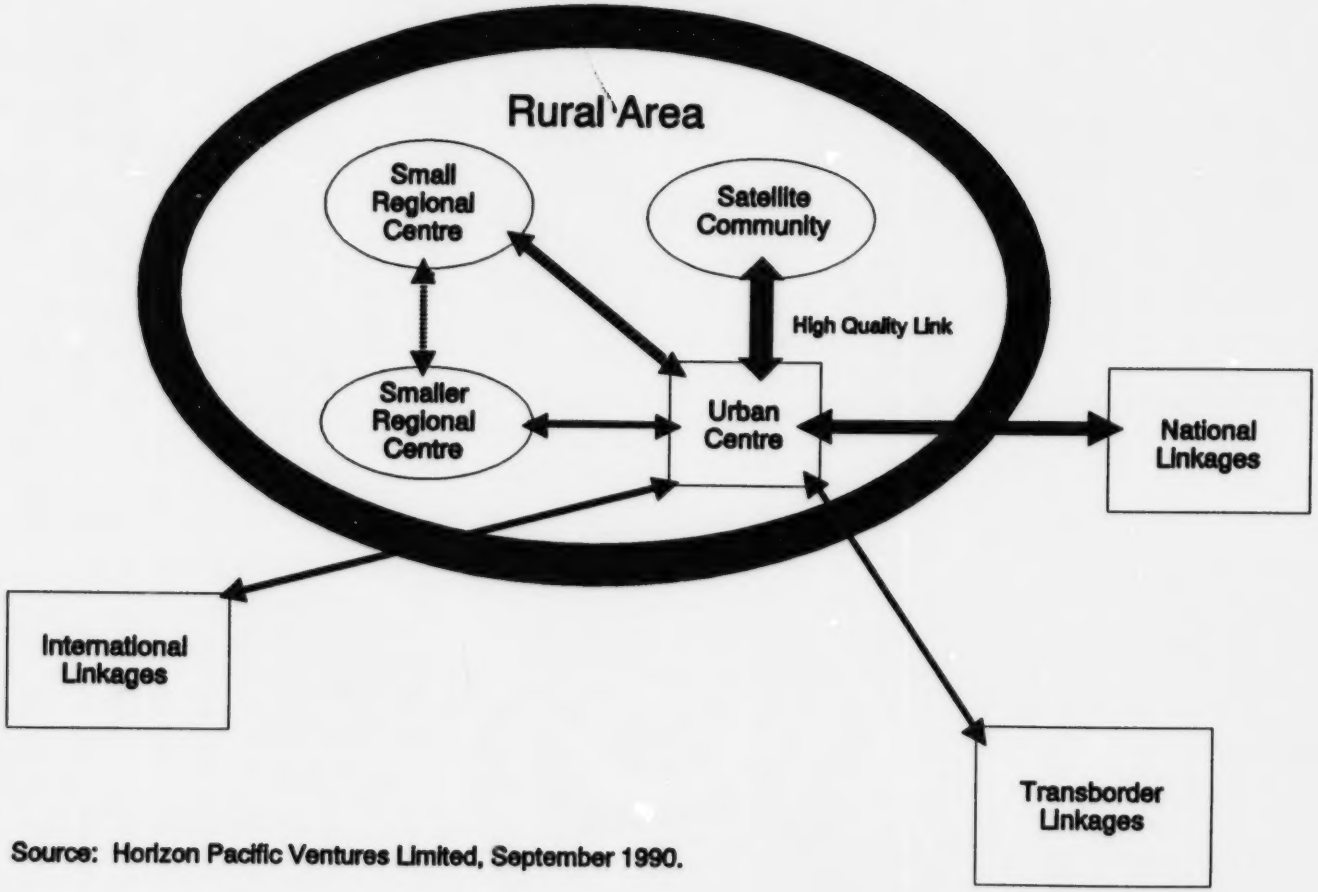
In this regard, it should be realized that only a 17 percent switch of passengers would double the traffic carried by all public transportation modes combined. Flexibility and responsiveness must be built into the system now in case this shift becomes a reality. One necessity will be an effective institutional and funding mechanism to facilitate provision of the required infrastructure in advance; another will be to better coordinate land-use and transportation planning so that public transportation can be an effective alternative to the automobile.

Another important factor is that intercity passenger transportation is more than just a city to city movement. Canada is a collection of regions with overlapping boundaries, and the future focus should be on the regional centres through which rural, urban, regional, national and international travel passes. Such centres have their own regional catchment basins and play varying roles depending upon location, population and the result of past land-use planning. **(Figure 3.)**

The political boundaries between urban area, region and beyond are blurring. The average trip length by air has been steadily increasing for both cargo and passengers, meaning that the influence of regions has been reaching farther out, crossing more jurisdictional boundaries than ever before.

Figure 3

Regional Catchment Basins



Source: Horizon Pacific Ventures Limited, September 1990.

Categories like "domestic versus international" hold diminishing meaning, making it necessary to examine transportation policy as a flow from local community all the way to international destination. This makes the provision of direct transport links very important. For example, with devolution of airports through the Local Airports Authorities process, regional centres such as Edmonton and Calgary may want to establish more direct links to the Far East. (In this regard, such centres will find themselves more and more in competition with established gateways like Vancouver for airlines and routes.)

The dynamics of decision-making will become more complex and interactive in future. The push to expand international transport services and facilities may come mainly from the regions, for domestic from the communities. A national policy framework is required which facilitates initiatives at these levels.

2.4 Facilitating a Future System

How do we respond to the current pace of change happening in Canada and elsewhere in the world? Do we try and stop it, live with it, or embrace it? The following describes what the future conditions are likely to be, and then presents suggestions as to how Canada can take advantage of the future by facilitating an effective intercity passenger transport system.

Mobility and service are key to efficient intercity travel, particularly if public transportation becomes a real alternative to the automobile. Since no single public mode can effectively provide transport from origin to destination, the various modes will need to become better linked. A good starting point will be to support the expansion of Computerized Reservation Systems (CRS) to include information on all modes. Other requirements will include multimodal passenger terminals, coordinated schedules, through ticketting, and readily available information. The service provided from origin to destination will be important, not which mode or modes provides it.

In view of current attitudes, it is unlikely this coordination can be achieved through the imposition of rules and regulations. The focus will have to be on creating an appreciation among all carriers of the opportunities presented by a coordinated, multi-modal transportation network. This type of self-organized modal integration will undoubtedly take time to achieve, but has a better chance of success in the long run due to its reliance on companies taking action they perceive is good for them - and thereby giving customers what they need.

The issue of corporate concentration was briefly dealt with above in relation to the implications of restricted airport capacity. The world of the 21st Century will likely feature a number of strategic alliances between airlines which go far beyond today's seat pooling, sharing of CRS, or cooperation on frequent-flyer programs. Each such alliance may well function as one inter-related carrier around the world.

There is a school of thought which holds that Canada must have only one national airline if we are to have a presence in international aviation. But having at least two national airlines - each part of a strategic alliance - might well be more beneficial to this country than ending up with only one national carrier exercising a monopoly on major domestic routes.

It will be important that infrastructure be designed, not only to meet current needs, but to allow for the future as well. For example, the growth of intercity markets will create a need for transport improvements to corridors. Recognizing this, efforts should now be made to protect land in those corridors so that future transportation needs can be met without the added cost of having to tear down existing facilities or deny existing functions. Indeed, land-use planning needs to anticipate both intracity and intercity transport trends.

The basic split characteristic of most modes, whereby government provides the infrastructure and private carriers the services, is likely to remain, although the private sector will have a growing opportunity to invest in the former (e.g., the third terminal at Pearson International Airport).

Finding adequate funding for transportation infrastructure is likely to be a problem for all levels of government, although most basic facilities are already in place. Coupled with the overall importance of transportation to Canada's sustained economic development, it is imperative that government and the private sector get the "biggest bang for the buck" from future transport spending, by revamping existing facilities and concentrating on those new facilities having the most potential.

Achieving this efficiency will require a regionally applied systems approach. For example, a decision should not be made to expand a congested airport until there is a clear understanding of the nature of the problem. If the congestion is related to substantial local traffic volumes, an investigation should be made to determine whether the congestion could be more cost effectively reduced by improvements to the surface transport network, rather than construction of additional air facilities. If it results from policies that prevent traffic from being routed elsewhere (e.g., by a rigid air bilateral agreement with the US or another country), the attempt should be made to have those policies and agreements changed. Only if facility expansion remains the best solution should the airport be expanded.

Implementation of a systems approach will require changes in the way planners define and analyse transportation problems, and in the way decisions are made on the appropriate solutions. The past approach of specialization, and of isolated decision-making by mode and jurisdiction, constrains our ability to implement systems solutions.

How can the above-described issues best be dealt with? Transportation will provide Canada with a competitive advantage only if government, industry and users all approach it with a positive, innovative attitude. This does not require an abrupt change, but rather an evolution in thinking, and is helped along by the fact that we have already shifted from an attitude dependent upon regulation towards one favouring competition. The next step is to move to an approach which more strongly features the promotion of innovation and coordination.

Where market forces can meet needs, the role of governments and regulation can be minimized. Economic regulation tends to be expensive, time consuming and inflexible; it can promote confrontation, rather than cooperation; it can result in decisions based on inadequate information; and it can become a barrier to innovation and coordination. In less populated areas, appropriate regulation will continue to be needed to ensure that social services are provided and economic goals met.

There is little question that there will also continue to be a role for government in acting as a catalyst in initiating transport services, as well as in providing infrastructure. Remote, rural and northern areas are unlikely to ever be able to fully support transport, and there will always be situations in which government funding is needed in the early years to enable the private sector to undertake a service on its own.

Governments will find it necessary to consult directly with carriers, communities, interest groups and fellow governments as to how the passenger transport system can best improve itself, and the pressure will be on all governments to remove the barriers preventing this from happening. The real challenge for governments in Canada is to evolve a menu of regulatory and funding approaches which recognizes the differences between the requirements in densely populated corridors, in less populated corridors, and in remote regions as well.

Policies and programs which acknowledge the diversity of this country will also enhance responsiveness to the rapidly changing situation. For example, rather than naming specific points as key domestic air centres or international gateways, there may be a call for government to support efforts by communities to develop their own full potential, whatever that might be. Congestion might become a problem at one community's airport, but another community would be able to pick up the slack. On the freight side, there might be potential to move goods off a congested road onto a parallel underutilized rail line. Such actions must not be blocked by well-meaning, but counterproductive, regulations.

Efficiency in transport funding - whether for infrastructure or services - requires that expenditures be evaluated on an ongoing basis. Each activity must have clear objectives and a built-in review process. By looking at its role as being a facilitator and catalyst, but withdrawing as markets mature, governments may even be able to undertake new transport activities without having to increase the demand on scarce financial resources. (The recent privatization of Air Canada and current plans to devolve airports are excellent examples.)

Efficiency also requires collaboration between the various parties which deliver transportation infrastructure and services early on in the policy development process. Governments at all levels; carriers; business; industry; interest groups; and the general public - all are partners in the passenger transport system.

To conclude this chapter, the challenge will be to devise an approach which will allow Canada to compete effectively in the 21st Century, and then demonstrate how government policy can flow from that approach. While transport policies will have to reflect the new emphasis on the individual, community and region by focusing as much on process as on the decision itself, we should see this an potentially a positive phenomenon which can result in better decisions. As mentioned earlier, it will still be essential to introduce the balance needed to ensure that the common needs of society are taken into account.

3.0 MAKING TRANSPORT PART OF THE ENVIRONMENTAL SOLUTION

3.1 Introduction

During the period 2000-2025, the state of our natural environment will continue to be an important issue.

There inevitably will be environmental constraints upon intercity passenger transportation, in effect socially driven imperatives that help determine who is served, what modes are preferred, how they respond to environmental standards, and when their introduction is appropriate.

Upon closer examination, however, there is a mutually supportive link between intercity passenger transportation and the environment. Many of the required solutions to congestion and other transport problems are also potential ways of protecting the environment. As attitudes shift, people may become more willing to consider alternatives to the traditional use of the automobile. Furthermore, there are indications that people will be willing to pay for services or facilities that are environmentally acceptable.

Understanding these forces - especially in the world of the next century - will be the challenge faced by whomever makes the policy, draws up the plans, and serves the market.

3.2 Exercising Environmental Stewardship

The environment, it has been observed, occupies the public mind as an expression of three factors: health, amenity and stewardship.

First, emissions to the atmosphere from transportation sources degrade the quality of our air, spread toxic byproducts, and may contribute to global warming - all factors affecting health. Here, the choice of fuel, amount of travel and selection of transport mode are key factors.

Second, amenity encompasses such matters as having pleasant "viewscapes" and an absence of offensive noise or odour as one takes an intercity trip - whether between home or office and terminal; at the terminal; or during the intercity trip itself. Also affecting people are noise, safety, privacy and impact on land values related to transport facilities.

Third, stewardship refers to the way we sustain and manage our natural resources, upon which we depend for many of life's necessities. Here, transport facilities can impact adversely on the environment, during both construction and subsequent operation. (Examples: river crossings; borrow pits; disruption of habitat.)

Intercity passenger transportation also will not escape being affected by such matters as tradeable emissions permits, international protocols, domestic regional policies and sustainable development strategies - the potential "institutional means" of effecting desirable environmental management.

The question is: can transport be developed within a sustainable context?

There exists an exciting challenge to use transport (mode and system) as a building block in developing environmental strategies for community, region, nation, continent and globe. In concert with land-use planning, such as approach could become a strategic planning tool of the 21st Century, rather than one of several, unrelated jigsaw pieces of the 20th.

The "empowerment" of the individual citizen described in the previous chapter is clearly a factor in the form and extent of environmental concerns being raised about intercity passenger initiatives. Examples include the attempts over recent decades to build an additional runway at Vancouver International Airport, and the current South LRT-road corridor project in Edmonton.

This factor will continue to shape transportation planning and decision-making into the next century. It will not be adequate for planners to simply engineer an environmentally sound solution; public involvement is and will continue to be essential.

Governments and private sector proponents of major transportation projects are recognizing this. Processes of consultation are being established with the directly affected public and broader users. These processes will mature, but it is becoming evident that a key characteristic for their success will be that they occur at an early stage of major project planning. This way, the benefits as well the costs can be discussed in a factual manner (including social, economic, environmental, regional and local matters), alternatives considered before positions become entrenched, environmentally sensitive areas avoided, and mitigative measures designed into the solution. While early consultation may not avoid all of the adversarial situations so common in our culture, it may facilitate informed decision-making.

Most of the intercity passenger transport corridors that may be visualized for Canada in the next century are already in place. If transport planners focus efforts on enhancing the capacity of these corridors, environmental impacts and concerns will be reduced. In some instances, however, corridors will be inadequate to meet the needs. Here, the challenge will be to ensure the processes are in place which allow broader regional issues to be brought to the table in the decision-making process.

An example relevant to Alberta will be the need for improved highway infrastructure through the Rocky Mountain National Parks to the west coast. The alternatives are not simply, on the one hand, to allow no improvements (e.g. twinning) on local environmental grounds or, on the other hand, to go ahead and expand a highway for regional and national economic efficiency reasons without regard to environmental concerns.

Surely these two objectives - environmental and economic - can be married through, for example, appropriate design and other mitigative measures. One should not have a veto over the other.

Hand in hand with review and decision-making processes that accommodate environmental objectives is the need for enhanced public awareness of the fact that how we travel and where we travel has a direct and significant impact on the environment. The public preference for convenient automobile travel implies roadway improvements and air pollution, while that for low-density urban development strains the financial viability of public transportation options and requires substantial land for roadway needs.

Governments, environmental groups and the private sector all have roles in educating the general public and in developing incentives which will encourage environmentally sound personal choices. As many of the solutions to environmental problems are also solutions to transportation problems, there is an opportunity for the various players to collaborate in this regard. The growing attitude of individual empowerment and responsibility offers another opportunity which should facilitate the implementation of change (witness the success of "blue box" recycling programs).

With support of the general public, land-use patterns can be influenced so that negative impacts are reduced, both on people and the environment, in several ways: concentration of travel in high-density corridors which promote the public modes as opposed to the automobile; early preservation of rights of way; and urban designs which facilitate public transit access to intercity terminals.

In the 21st Century, the cumulative impact of intercity passenger transportation on the environment is likely to be greater than at present, if only because the number of travellers will be greater. New technologies and new transport solutions will also be the focus of public attention.

As mentioned in the previous chapter, we will have to depend on the automobile in the foreseeable future for most intercity trips. Here, "Smart" vehicle and highway systems could aid intercity traffic moving through congested metropolitan areas and intercity corridors. From a socio-environmental perspective, the efficacy of these systems is their potential to reduce time spent driving, cut fuel consumption, and extend the life of existing highways (i.e., a better use of existing infrastructure). The major drawback is that they may well encourage even greater use of the automobile and truck, with attendant environmental consequences.

High-speed trains are receiving considerable attention around the globe as a transportation mode well suited to passenger needs and environmental constraints beyond the year 2000. They can occupy the middle distance of the transportation spectrum, remaining competitive with aircraft in a domestic market for journeys of up to roughly 500 km. Several benefits are apparent, notably that such trains are energy efficient and relatively pollution-free on a passenger-carried basis when compared to other modes.

High-speed rail and other new rail technologies will also be the subject of environmental debate from various points of views, such as track-side noise, the potential health effects of magnetic levitation, and the generation of electricity to power these systems.

International air traffic is projected to increase greatly in the coming decades. Coincidentally, aircraft technology will produce revolutionary changes in travel. The new generation of aircraft will possess various economic and environmental advantages and constraints, but the greatest hurdle will be noise (particularly if supersonic aircraft become more prevalent). As for new airports, these will have to meet environmental criteria in their own right, and demonstrate their integral role in the transportation, communication and land-use strategies developed for the 21st Century.

Western Canada has the opportunity to demonstrate the full partnership between intercity passenger transportation and environment. These range from alternative transportation fuel propulsion (ethanol, methanol, compressed natural gas, etc.), to recognition of energy efficiency in mass transit and private vehicle use (i.e., vehicle conversion technologies; "Smart" vehicles and highways), to far-sighted land-use planning, and to the development of better intercity public transportation in various corridors.

To conclude this chapter, it will be important that we as a country meet the environmental challenge in several ways: implementing effective public consultation processes early on in our planning; enhancing public awareness of environmentally sound individual choices; promoting the various alternative fuel, traffic control and public transport initiatives described above (in such a way as to address both environmental and transport problems at the same time); investing in research and development having environmental objectives (a related theme); and harmonizing environmental review processes and regulations among the various levels of government in order to minimize cost to the public, proponents and governments alike.

One important caveat: The costs, taxes and fees we impose on transport facility developers, operators and carriers as a consequence of environmental reviews and initiatives must not disadvantage the Canadian transport system. We must ensure that we achieve the level of cost competitiveness required for the next century.

4.0 CREATING A VISION FOR FUTURE INTERCITY PASSENGER TRANSPORTATION

4.1 Introduction

In the past, Canada has had two underlying philosophical approaches to transportation: regulation until the mid-1960s; and deregulation - culminating in the "Freedom to Move" initiative - since. Now we need a new option, which will enhance intercity passenger transport innovation well into the 21st Century.

Now we need a new option to support the future growth and diversification of our economy, illustrated in **Figure 4** as "Enhanced Innovation".

The following builds upon the previous two chapters. It contains no magical solutions, but is rather a framework of guiding principles the Royal Commission might wish to consider as it ponders the shape of a future intercity passenger transport system.

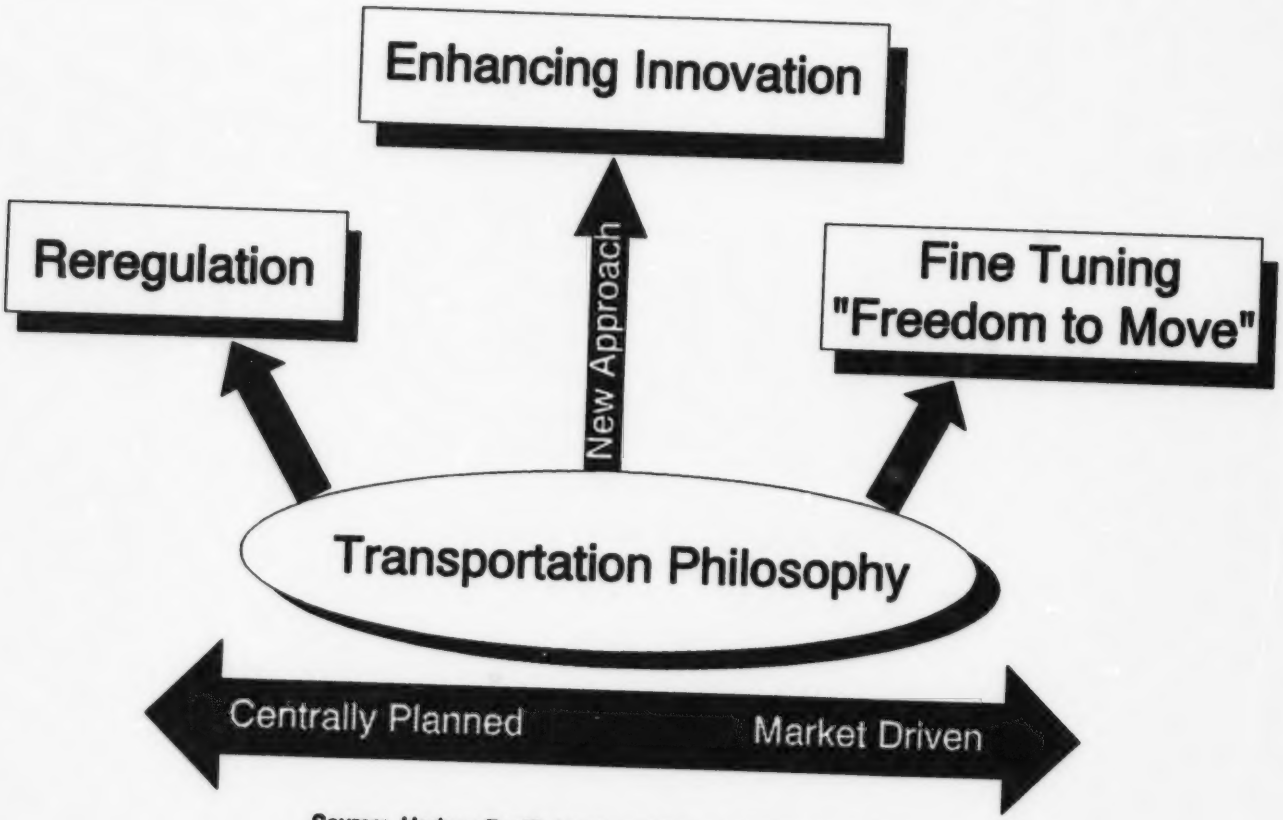
4.2 Gaining a Competitive Edge

The world of 2000-2025 will require this country to use all transportation facilities and services - from rural road through to international air link - as a prime means of gaining a competitive edge on other countries.

It can be strongly argued that we will not have the luxury of deciding whether we want to improve our transport system. Rather, it will be a matter of basic survival. History tells us what happens when communities, regions or countries fail to keep pace with transport developments: they are by-passed and stagnate; some even die. Canada faces such a choice at this time: we either establish a transport system which is innovative and responsive, or our economy will not be competitive.

Figure 4

The Next Step
Possible Policy Directions



Source: Horizon Pacific Ventures Limited, September 1990

While moving goods around the country and beyond to export markets will be of critical importance, so will intercity passenger transportation - both international and domestic. High-quality passenger links encourage business to be done here in Canada rather than in other countries, and are crucial to attracting tourists in a world featuring many prime, readily accessible tourist attractions.

4.3 Facing the World of 2000-2025

While national policies featuring roles assigned according to some master plan may have worked in the past, they have tended not to be successful in recent years, and are even less likely to be in tomorrow's world. It follows that the individual must be given the widest possible freedom to innovate.

Due to advances in electronic technology, evolving global socio-economic changes and the "empowerment" of the individual, the worldwide trend has been towards decentralization of power within countries.

Whatever their political stripe, governments appear leary of attempting to implement overall master plans developed according to centrally developed concepts. While some governments may choose more than others to emphasize issues such as the environment or the provision of what have been called "people" services, there seems to be a basic acknowledgement that the welfare of any nation depends on a healthy, innovative economy capable of succeeding in a highly competitive world that is only going to get more competitive.

Again, regardless of their ideology, most governments seem to acknowledge that the primary driving force of an economy is the highly trained individual citizen armed with the latest technology and motivated to achieve a high standard of living. Aspirations usually include considerable leisure travel, and, for many people, work requires a lot of business travel as well. In both cases, the scope is global.

There is also recognition that national economies are the sum of many sub-economies, and that these typically function as part of a region, then progressively of a country and finally of the world beyond. In the future inter-related world, a regional economy may have closer economic ties with foreign countries than with some parts of the nation itself. **(Figure 5.)**

Alberta is already a good example of this phenomenon. We are much more than a mere conduit of east-west travel and commerce. We trade and travel in all directions, and will do so more and more in future. While we will still have strong, productive agricultural, energy and resource bases, the goal is for Alberta to become more and more economically diversified. At the same time as we strengthen our links with the rest of Canada, we expect to be a much more important destination for international tourism and for the location of businesses with strong links - particularly to the Pacific Rim and the US.

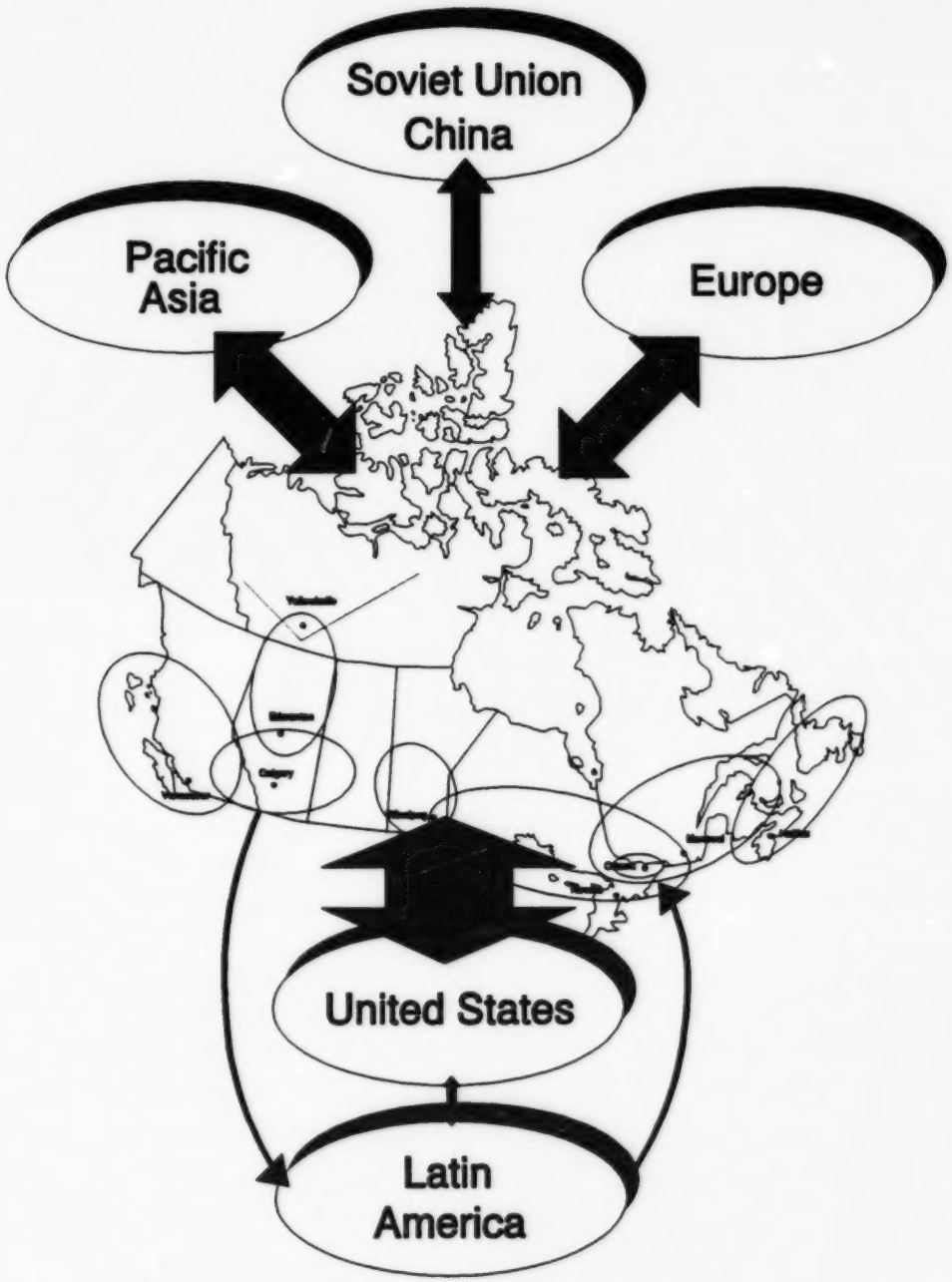
Furthermore, we see a diverse and growing population in our cities, and believe that our rural areas will strengthen their position by means of new development opportunities. The Calgary-Edmonton corridor will continue to be one of the busiest in Canada, and our other vital intercity, rural and northern links will also thrive.

Consistent with the empowerment of the individual will be an increasing demand for mobility (i.e., convenience and choice). Transport planners will have to design systems and individual services to serve the widest population possible - not just the able-bodied.

All this means that centrally developed master plans are inappropriate to the new reality. Recent examples include the National Energy Policy (which attempted to dictate the structure of Canada's energy industry), and the current air bilateral system (which has had only limited success in taking advantage of the air mode's economic development potential). This being said, it is acknowledged that an important challenge will be to ensure that the common good of society prevails in this new world.

Figure 5

Future Vision: Canada as a Key International Crossroad



Source: Horizon Pacific Ventures Limited, September 1990.

4.4 Decentralizing the Delivery of Services and Facilities

Rather than propose some detailed master plan, a national intercity passenger transport policy needs to set an overall framework within which our communities and regions can flourish. As a rule, the higher the level of government, the more general such a framework should be.

One key advantage of this approach is that government remains close to the individual, and as a rule, the closer the government is to the individual, the better the likelihood it can be held accountable for its actions. Where transport is concerned, another advantage is that the user's interests are more likely to be paramount, rather than those of government bureaucracies, carriers or facility operators.

That this basic reality applies to much more than policies or programs is shown by the Local Airports Authority concept, which recognizes that communities are in the best position to decide what air facilities and services they will need in tomorrow's world - then go out, get them, and market them.

There will still be a legitimate role for the central government in such matters as responding to a need for national standards (e.g., highway design), developing a code for handling hazardous goods, ensuring a high level of safety, or providing certain transport facilities of regional or national significance. It can also act as an invited mediator when disputes cannot be resolved among carriers, users and communities. Where market forces can meet needs, regulation should focus on safety, consumer and environmental protection rather than service levels, awarding of routes, or other forms of economic regulation.

To reduce the necessity of provinces opting out of national frameworks, it will always be important that decisions are reached through consensus rather than through a centrally imposed master plan, and that the framework build in flexibility. The option should always be there for a province - or perhaps a region - to implement its own rules if a framework fails to deal adequately with local conditions. An example would be if nationally designed highway standards failed to address conditions facing truckers of a particular region.

It is useful at this point to divide the delivery of intercity passenger transportation into two segments: operating services and facilities; and facilitating the provision of infrastructure. The former is discussed below in this section; the latter in the following section.

As a general rule, the private sector or regional authorities should take care of the operating services and facilities side. Where transport services are concerned (i.e., running the airplanes, buses and trains), private carriers can best do the job. The need for government-owned carriers for the most part will vanish during the period under consideration. (The privatization of Air Canada has already set the tone in this regard.)

Another example is the privatized mountain rail service formerly operated by VIA Rail Canada but now run by Great Canadian Railtour Company. While no one can predict if the concept will be financially viable, highly experienced people familiar with the western Canadian tourism business now are running the service right on the scene, aggressively going after a niche having considerable potential. Unlike the situation with a crown corporation like VIA, these managers do not have to get approval from a central authority when it comes to performing the most basic of functions (e.g., the purchase of a locomotive, or the offering of an incentive fare).

Then there is the operation of transport facilities. In the next century, our communities will need to have every advantage as they compete, not just with other regional and national centres, but with cities all over the world. The old approach of having a central government own, market and operate such a key economic development tool as a community's airport - in accordance with one overall plan - has little support today.

Individual communities may find it necessary to link with their neighbours so as to create "critical mass". A future example would be the enhancement of passenger links between Calgary and Edmonton to allow these cities the critical mass needed to compete effectively on both the domestic and international scenes. In some cases, the same approach could benefit an entire region taking in two or more provinces.

One important issue will concern the importation of certain types of foreign-built transport equipment. Canadian builders should not be encouraged to duplicate their counterparts in other countries in every type of equipment. Doing so in the past sometimes has required large subsidies, and has rendered financially infeasible some passenger transport services needing a limited amount of low-cost equipment now, not some time in the future.

It is important to acknowledge at this point that, in a country like Canada, there will always be a need for government to subsidize the operation of some transport services and facilities for social and economic development reasons - particularly those in remote and northern areas. Such services and facilities should be reviewed on an on-going basis so as to ensure that they are being provided in the most efficient manner possible.

Service to rural areas will become more and more of a problem as people continue to consolidate in larger rural towns and villages. If an effective public transport alternative is to be maintained, it will be necessary to encourage the use of vehicles, operating procedures, and manning arrangements tailored to the demand, not copied from high-volume operations. Franchising such routes to smaller operators may be one method by which rural communities can continue to receive service to regional centres. The role of higher levels of government should be to ensure that there are no regulatory or other impediments to such innovation, while at the same time continuing to monitor safety and consumer issues.

Finally, the collective effect of all taxation policies should not impede the efficiency of our transport system. If the various taxes and charges are collected without regard to their cumulative effect on our transport carriers and facility operators, we may not be able to achieve the degree of efficiency necessary to ensure our future competitiveness - especially with the US right next door and myriad other nations not far beyond. This danger will be only exacerbated should the proposed federal Goods and Services Tax be passed into law.

4.5 Facilitating the Provision of Infrastructure in a Changing World

Although most basic facilities are already in place, there will always be a need for governments to facilitate the provision of some transport infrastructure in a country having our geography, climate and population. The basic split within most modes is likely to remain (i.e., whereby government is responsible for the infrastructure and private carriers the services), but there may be expanded opportunity for private involvement. One option would be to set up federal regional transport investment pools allocating a portion of federal transport funding to proponents of facilities having regional or national significance - according to regional and local priorities.

Having discussed the operating side in the previous section, it is now appropriate to deal with infrastructure. At all levels of government, it will be necessary to re-examine how we facilitate the provision of transport facilities. Road and air facilities are already supplied mainly by governments, while the rail system consists of a huge piece of infrastructure split for the most part between one crown and one private carrier, each having exclusive control over its trackage.

In Alberta's view, governments will continue to have a major role in facilitating the provision of transport infrastructure. At present, public facilities are generally paid for out of general revenue, which is collected by the federal and provincial governments through several means, including income taxes, excise taxes, sales taxes, fuel taxes, royalties and user charges.

With constraints on government funding, and with an objective of keeping taxes on transport carriers and facilities at a level which does not impede their competitiveness, other sources of infrastructure financing will have to be explored. Several approaches are worthy of consideration.

One worth considering is that of applying a higher rate of cost recovery through user charges on those mature modes which are paying substantially, but not fully, for themselves - as opposed to those which are less mature and therefore in need of support until such time as they become self-sufficient. (This, of course, will vary from region to region and mode to mode.) Another is private sector investment in facilities and infrastructure where user charges or development opportunities could generate the required rate of return. (Terminal 3 at Pearson International Airport is one example.)

The Local Airports Authorities provide another model, given their intention to make use of user charges, debt and retained earnings. Yet another model is Canada Ports Corporation, which depends largely on user charges, retained earnings and federal capital assistance.

Alberta suggests that another approach will be needed to fit the circumstances of the of the 21st Century. Planning will more and more have to follow the priorities of those regional and community interests which depend upon these facilities for their future economic and social development, and the conditions will have to be such that there is an incentive for modal coordination. There will be little scope for unilateral federal action in this or most other transport matters.

One approach would be to establish regional pools of federal transport infrastructure investment money to handle those projects which serve regional or national goals and which fit either of two circumstances: one, they form the basic infrastructure needed to support economic activity, but due to certain basic realities can never be financially self-sufficient; or two, they need help in the early years to achieve long-term viability.

Several factors will come into play here. In all likelihood, tax money will continue to be scarce at all levels of government, due in part to increasing social and health requirements related to an aging population. What money there is will have to be spent to maximum advantage. We will need to look at improving existing facilities where possible and request that the direct beneficiaries pay a greater share of the cost (where this does not compromise our competitive position). There may also be more of a role for the private sector in providing investment money for the "leading edge" transport projects which will be essential to help ensure our future competitiveness as a country.

A second factor is that proposed transport projects should be examined on a multimodal, systems basis. The practice of looking at the modes in isolation will have to end, so that the attributes of each are considered when investment decisions are made. A third factor is that no new governmental structure need be established to operate such regional investment pools. Existing structures can be modified as needed.

These two factors are related to the concept of decentralized decision-making discussed earlier and, indeed, are inter-related. Decision-making at the regional or local level encourages consideration of all options, and eliminates any need for new institutional structures to ensure such coordination.

The basic philosophy would follow Alberta's Transportation Partnership capital grants for cities and Public Transportation Operating Assistance grants for smaller communities. Subject to certain minimal conditions, money is provided for use according to the community's priorities, on the principle that they know what is best for them.

When designing the structure of these regional pools, other models could be looked at: federal "block" grants for education or health care; the federal Western Economic Diversification Fund; the Canada - Alberta Northern Development Agreement; and the various federal - provincial Memoranda of Understanding which provide for joint planning and complementary programming. While none of these models by any means would fit all of the requirements for such pools, each has attributes which might be useful to consider.

A regional pool concept for transport would enable proponents to apply for funding support of key transport infrastructure where insufficient private capital was available. In the case of projects initiated by the private sector or a regional authority, provincial and municipal governments could decide to join in with financial support. Successful proponents would be expected to pay back a good share of the funding made available. In effect, government would be "topping up" where necessary.

The source of the basic money put into the pool by the federal government, or into specific projects by individual provinces or municipalities, would depend on the standard approval processes of the governments concerned.

A greater role for the private sector in supplying infrastructure does not have to mean a free rein for facility operators and carriers. Lack of space for new facilities; new technology; the empowerment of the individual; changing attitudes towards pollution; tougher consumer-protection measures; safety and design standards - all will require private carriers to act responsibly towards community and consumer if they are to survive.

4.6 Bringing Transportation and the Environment Together

Where major transportation projects are concerned, public consultation early in the planning process will encourage informed discussion of benefits as well as costs, and thus ensure decision-making in the best public interest. In many cases, the remedies to deal with environmental problems have the potential to help resolve transport problems as well - a fact which provides a clear opportunity for governments, environmental groups and the private sector alike.

Global forces will inevitably increase both business and leisure travel in the next century, thereby requiring expansion of transport facilities. Environmental matters will remain high on the public agenda, and with the active role of individuals and interest groups, it is unlikely that major transport projects will be built until they have undergone intense public scrutiny.

Only through early public consultation can there be informed debate on the benefits and costs of a project (including regional social and economic, as well as environmental, factors), consideration of alternatives before positions become entrenched, and the incorporation of mitigative measures in design.

Many of the remedies being proposed to deal with environmental problems have the potential to help resolve transport problems as well. For example, moving to smaller, more efficient vehicles and encouraging car pooling or the use of public transit would go some way to reducing emissions and the environmental issues associated with road expansions in built-up areas. Such changes would also reduce the need for costly new road infrastructure. In tandem with land-use planning, transport planning can become an integral part of the environmental effort.

The trend towards individual empowerment and responsibility in Canadian society also offers an opportunity to encourage personal choices in transportation, housing, etc. which will benefit both the transportation system and the environment. Governments, environmental groups and the private sector all will have roles in this regard.

In intercity transport, the corridors required into the next century already, in the main, exist. Improvements to enhance the capacity of these corridors will raise fewer environmental issues than new developments, and technologies such as "Smart" vehicles and highways will also assist.

New technologies (e.g., high-speed rail) will help address current transportation and environmental concerns. Some, however, may raise new environmental concerns which will have to be addressed. Improvements to existing technologies, such as the use of alternative fuels and development of more fuel efficient vehicles, also hold promise.

Support of research and development - together with sound decision-making by individuals, policy makers and planners - will be required. At the same time, we must ensure that the costs (direct and indirect), taxes and fees incurred in addressing environmental issues are kept at a level which maintains the cost competitiveness of the Canadian transportation system into the next century.

4.7 Combining Land Use and Transportation Planning

In future, there will be an even greater need to coordinate land-use planning and regulation with transportation requirements. The city must be looked at as the origin or destination of most intercity trips. The structure of our cities, existence of downtown access corridors, and availability of intermodal terminals will all have an important effect on the future competitiveness of our communities.

Land use has several implications for intercity passenger transportation, beginning with the effect of urban development on local transit. Most intercity trips begin in cities. Because the typical development pattern of our cities is not conducive to transit, most people do not have a convenient alternative to the automobile. Furthermore, these urban development patterns can make access between home or office and intercity terminals difficult, thereby affecting the competitiveness of a city in a world in which every advantage is important.

Another issue is the effect local restrictions and other processes can have on the development of intercity terminals (whether airports, bus stations, rail terminals, or intermodal terminals), and on the future availability of downtown access corridors or corridors between cities - new and old. The flexibility must be there to accommodate future requirements through zoning and other tools. Regulations, including environmental review processes, should be harmonized between the various levels of government, in a manner which minimizes duplication and respects constitutional jurisdiction and legal authority.

Finally, the concept of having developers who benefit from transport improvements pay part of the cost should be investigated carefully.

4.8 Ensuring Future Competition and Coordination of Services

In a diverse and far-flung country like Canada - with its mix of private and public, national and regional carriers - one of the most important requirements for the future will be coordination of the various passenger transport modes. Such coordination is unlikely to occur through centralized planning and direction; instead, it will only happen if carriers of all modes perceive it to be to their advantage as a source of new traffic, or for the preservation of existing traffic where real competition exists. We also will need to ensure that monopolistic or oligopolistic situations are remedied where possible.

Every effort will have to be made to ensure that future intercity passenger transportation is provided under competitive conditions wherever possible, so as to encourage innovation and efficiency. This means intra-modal competition in major intercity bus and air corridors. (In theory, the same should apply to the rail mode, but this will likely remain impractical due to the economic and ownership structure typical of large railways.)

The directions already suggested would facilitate competition by allowing market forces to operate where they made sense, by decentralizing the delivery of services and facilities, and by implementing the federal regional investment pool concept. (Here, decisions on what pieces of infrastructure should be built also need to take into account the attributes of all modes of transport.)

The issue of corporate concentration will also be important. Canada cannot afford to ignore what has been going on internationally in the airline industry. Our airlines may well have to enter strategic alliances with their US and other counterparts, so as to survive as viable forces on the world stage and competitors on the domestic scene.

Coordination of schedules, terminals, fares and marketing is equally important if public transportation is to become an effective alternative to the automobile. One of the keys here will the existence of multiple carriers within each mode on major intercity routes. Competition is the best way to ensure carriers have little choice but to innovate and tap every source of revenue.

Another requirement is the further development of Computerized Reservation Systems (CRS), which will facilitate the selling of complete packages featuring public transportation, rental cars, accommodation and attractions aimed at both tourists and business travellers. One reason such coordination has not happened on a wide scale in the past has been the absence of access to these systems at a reasonable charge. This will likely change as substantial advancements are made into the 21st Century.

One option worth investigating is the Public Transport Marketing Agency concept, in use in many areas of the world and some parts of Canada. Such agencies coordinate schedules and market services utilizing various modes and facilities, usually on a regional basis. Participation of private carriers is voluntary, but becomes attractive in a truly competitive situation because fellow carriers might join. (A prime example in Canada is Ontario's GO Transit.)

Many Canadians do not realize that most developed countries have high-quality, coordinated public transport systems, and that citizens of these countries might well use public transport when visiting Canada if provided at an equivalent level of quality. Indeed, they may avoid Canada if the automobile becomes less attractive due to congestion, cost or environmental factors, and no coordinated public alternative exists.

The role of government should be to act as a catalyst in ensuring that these coordinating efforts succeed. Examples: the federal regional transport investment pools mentioned above could be tapped to help develop CRS; governments could ensure that regulations and land-use policies did not hinder development of coordinated services and multimodal terminals; and governments could encourage the carriers to work together (including staff training) towards the new era of coordination.

4.9 Spanning the Globe While Preserving Domestic Links

While the evidence all suggests that a trading nation like Canada will have to look more outward in future - both south to the US and in most directions to other continents - this change in direction will not necessarily result in a diminution of cross-Canada business or pleasure travel.

It is true that, for Alberta, this outward-looking focus will be even more pronounced, with emphasis on the western US (given the Canada-US Free Trade Agreement) and Pacific Rim countries. But it could be argued that the trade agreement will improve the economic prospects of all regions of the country, and therefore the ability (and need) to utilize our cross-Canada passenger links. Accordingly, our identity as a country will also be strengthened, not weakened by the forces of globalization.

If this proves to be true, the transcontinental air links already in place should continue to do well, especially considering they are largely complementary to international routes. It could also be argued that the devolution of airports will result in Local Airports Authorities promoting all air links, including transcontinental ones, and therefore expanding east-west travel for both tourism and business purposes. Another helpful development would be increased coordination between the modes.

Bus and rail are a different matter. The bus serves a largely regional role, providing short to medium distance transportation and carrying little transcontinental traffic. As for rail, VIA no longer has a significant transcontinental presence since the January 1990 federal cutbacks. The bigger question for the west will be the future sustainability of transcontinental rail freight links.

4.10 Towards Effective Research and Development

Canadian efforts should be directed to ways to enhance research and development efficiencies and performance. Mechanisms which encourage and foster cooperative efforts warrant further exploration.

It is well recognized that Canada's total commitment by industries, governments and universities to science and technology lags significantly behind our major international competition. The Halifax Declaration, a document prepared at the first meeting of Canada's provincial and federal science advisory council, strongly urged a doubling of our research and development investment to 2.5 percent of GDP by the end of the 1990s. Indicators are that, at less than 1.5 percent, the country still has a long way to go to achieve the overall target. While we do not have data specific to the transportation sector, we can presume that these comments generally apply here as well.

With limited funding and difficult decisions on the allocation of resources for both government and the private sector, it may be unrealistic to expect a rapid move to the target in the short term. However, every effort should be made to maintain the current level of research investment, ensuring that it is not progressively eroded by inflation. As financial conditions permit, research and development should be high on the priority list for additional dollars.

If we cannot see a rapid increase in research and development funding, our attention has to turn to improving research efficiencies and performance in Canada. No one model can be suggested which would adequately serve the spectrum of activities undertaken by the various levels of government and private companies of all sizes that comprise the transportation sector. Nor would our needs be served by simply transplanting a successful foreign model into the Canadian economy and culture.

Based on our experience as a provincial transportation department, a number of guiding principles nevertheless can be suggested for a successful model (recognizing that these principles may be more applicable to the research and development efforts of governments than of the private sector):

- Our resources are too limited to fully and adequately explore all potential areas of science and technology which could benefit the transportation sector.

- While centralization may pool resources, it may be inconsistent with facilitating innovation and addressing local and regional needs.

- Mechanisms which foster co-operation - both in information sharing and joint research and demonstration projects - should be encouraged among Canadian jurisdictions, with foreign agencies, and between governments and the private sector.

- An excellent example is the Canadian Strategic Highway Research Program. With a relatively small investment, a province such as Alberta gains access to the results of a $100-150 million, multi-year US program.

- o As well as realizing leverage in our research and development investment and avoiding costly duplication, co - operative efforts facilitate the transfer and dissemination of new technologies. Effective technology transfer helps ensure that our transportation system benefits from new innovations and enhanced efficiencies.

- o New technologies themselves - such as teleconferencing and electronic information transfer - will continue to facilitate such co-operation.

4.11 Striking an Agenda for Action

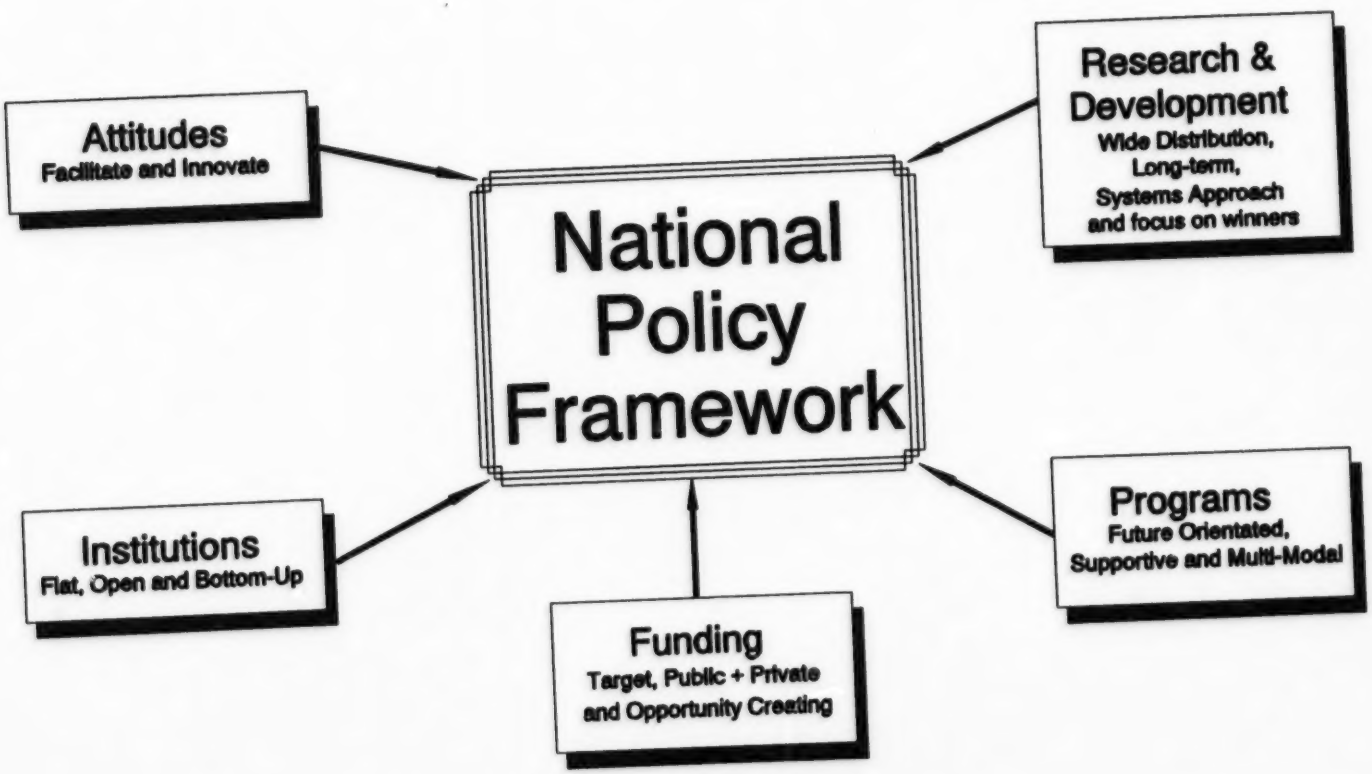
To conclude: Before any of the above can happen, it will be necessary to develop a widespread understanding of just how much our global competitiveness will depend on good passenger transport links.

Perhaps the most difficult problem will be making the argument that essential transport investment decisions have to be made today, even if the benefits will not become apparent until some time into the future.

However, there is really no choice but to get the necessary institutional arrangements and facilities in place at the appropriate time, so as to give Canada the competitive edge it will require in the 21st Century. **(Figure 6.)**

Figure 6

Guiding Principles
Building the "Enhancing Innovation" Policy



Source: Horizon Pacific Ventures Limited, September 1990.

5.0 SUMMARY AND RECOMMENDATIONS FOR FURTHER INVESTIGATION

5.1 Summary

The major findings of this submission can be summarized as follows:

- Canada has outgrown its current vision of transportation, which was successfully implemented since Confederation by means of large, nation-building projects, regulation and publicly owned national carriers. The world of 2000-2025 will require this country to use all transportation facilities and services - from rural road through to international air link - as a prime means of gaining a competitive edge on other countries.

- While national policies featuring roles assigned according to some master plan may have worked in the past, they have tended not to be successful in recent years, and are even less likely to be in tomorrow's world. It follows that the individual must be given the widest possible freedom to innovate.

- Rather than propose some detailed master plan, a national intercity passenger transport policy needs to set an overall framework within which our communities and regions can flourish. As a rule, the higher the level of government, the more general such a framework should be.

- Although most basic facilities are already in place, there will always be a need for governments to facilitate the provision of some transport infrastructure in a country having our geography, climate and population. The basic split within most modes is likely to remain (i.e., whereby government is responsible for the infrastructure and private carriers the services), but there may be expanded opportunity for private involvement. One option would be to set up federal regional transport investment pools allocating a portion of federal transport funding to proponents of facilities having regional or national significance - according to regional and local priorities.

- Where major transportation projects are concerned, public consultation early in the planning process will encourage informed discussion of benefits as well as costs, and thus ensure decision-making in the best public interest. In many cases, the remedies to deal with environmental problems have the potential to help resolve transport problems as well - a fact which provides a clear opportunity for governments, environmental groups and the private sector alike.

- In future, there will be an even greater need to coordinate land-use planning and regulation with transportation requirements. The city must be looked at as the origin or destination of most intercity trips. The structure of our cities, existence of downtown access corridors, and availability of intermodal terminals will all have an important effect on the future competitiveness of our communities.

- In a diverse and far-flung country like Canada - with its mix of private and public, national and regional carriers - one of the most important requirements for the future will be coordination of the various passenger transport modes. Such coordination is unlikely to occur through centralized planning and direction; instead, it will only happen if carriers of all modes perceive it to be to their advantage as a source of new traffic, or for the preservation of existing traffic where real competition exists. We also will need to ensure that monopolistic or oligopolistic situations are remedied where possible.

- While the evidence all suggests that a trading nation like Canada will have to look more outward in future - both south to the US and in most directions to other continents - this change in direction will not necessarily result in a diminuation of cross-Canada business or pleasure travel.

- Canadian efforts should be directed to ways to enhance research and development efficiencies and performance. Mechanisms which encourage and foster cooperative efforts warrant further exploration.

- Before any of the above can happen, it will be necessary to develop a widespread understanding of just how much our global competitiveness will depend on good passenger transport links.

5.2 Further Investigation

It is suggested that the Royal Commission might wish to conduct further investigations to determine how:

- other countries are planning to cope with the world of 2000-2025;

- a national transportation policy framework can be structured;
- government funding of transportation infrastructure can be concentrated on "leading edge" projects, to be implemented locally or regionally to the extent possible through the establishment of federal regional transport investment pools;
- the private sector can take on a bigger role in funding transport facilities;
- transportation and the environment can be mutually supportive in solving each other's problems;
- land use and regulation can be brought into the new framework;
- our transport carriers can be encouraged to move to a fully coordinated intercity passenger system, while effective competition exists and our system is fully tied into worldwide trends; and
- transport research and development can be facilitated through cooperation and technology transfer.